

We claim:

1. An isolated I $\kappa$ B kinase (IKK) subunit, IKK- $\gamma$ , comprising substantially the same amino acid sequence as SEQ ID NO: 2.

5        2. The isolated IKK- $\gamma$  of claim 1, comprising an amino acid sequence having at least 55% amino acid identity with SEQ ID NO: 2.

3. The isolated IKK- $\gamma$  of claim 1, comprising the amino acid sequence SEQ ID NO: 2.

10       4. An IKK- $\gamma$  active fragment, comprising substantially the same amino acid sequence as a portion of the I $\kappa$ B kinase subunit, IKK- $\gamma$ .

15       5. The IKK- $\gamma$  active fragment of claim 4, comprising at least ten contiguous amino acids of SEQ ID NO: 2.

6. The IKK- $\gamma$  active fragment of claim 5, comprising at least twenty contiguous amino acids of SEQ ID NO: 2.

20       7. The IKK- $\gamma$  active fragment of claim 6, comprising at least fifty contiguous amino acids of SEQ ID NO: 2.

8. The IKK- $\gamma$  active fragment of claim 4, which is a dominant negative inhibitor of IKK activation.

25       9. The IKK- $\gamma$  active fragment of claim 4, comprising amino acids 1 to 300 of SEQ ID NO: 2 ( $\Delta$ C-IKK- $\gamma$ (1-300)).

10. The IKK- $\gamma$  active ~~fragment~~ of claim 4, which has IKK- $\beta$  binding activity.

11. An isolated IKK- $\gamma$  nucleic acid molecule, comprising a nucleotide sequence encoding substantially  
5 the same amino acid sequence as SEQ ID NO: 2.

12. The isolated IKK- $\gamma$  nucleic acid molecule of claim 11, comprising a nucleotide sequence encoding an amino acid sequence having at least 55% amino acid identity with SEQ ID NO: 2.

10 13. The isolated IKK- $\gamma$  nucleic acid molecule of claim 11, comprising a nucleotide sequence encoding amino acid sequence SEQ ID NO: 2.

14. The isolated IKK- $\gamma$  nucleic acid molecule of claim 13, comprising nucleotides 149 to 1408 of SEQ ID  
15 NO: 1.

15. The isolated IKK- $\gamma$  nucleic acid molecule of claim 13, comprising SEQ ID NO: 1.

16. A polynucleotide, comprising at least nine contiguous nucleotides of SEQ ID NO: 1.

20 17. An antisense polynucleotide, comprising a nucleotide sequence complementary to at least nine contiguous nucleotides of SEQ ID NO: 1.

18. A method of identifying an effective agent that modulates the specific association of an I $\kappa$ B kinase  $\gamma$   
25 (IKK- $\gamma$ ) subunit and a second protein, comprising the steps of:

a) contacting the IKK- $\gamma$  subunit and the second protein with an agent under conditions suitable for the specific association of said IKK- $\gamma$  subunit and said second protein; and

5        b) detecting an altered association of said IKK- $\gamma$  subunit and said second protein in the presence of said agent,

wherein said altered association identifies said agent as an effective agent that modulates the specific  
10 association of said IKK- $\gamma$  subunit and said second protein.

19. The method of claim 18, wherein said contacting is *in vitro* and said IKK- $\gamma$  subunit is isolated.

20. The method of claim 18, wherein said contacting  
15 is in a cell in culture.

21. The method of claim 20, wherein said cell is selected from the group consisting of a mammalian cell and a yeast cell.

20        22. The method of claim 20, wherein said altered association is detected by measuring the transcriptional activity of a reporter gene.

23. The method of claim 18, wherein said agent is an organic molecule.

25        24. The method of claim 23, wherein said agent is a peptide.

modulating NF- $\kappa$ B ac  
acting the cell with  
the specific associa  
protein.

of claim 26, wherein

modulating NF- $\kappa$ B ac  
roducing into the cel  
ide.

of claim 28, wherein  
ide is expressed in

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ing NF-  
into th

                    

29. The method of claim 28, wherein said IKK- $\gamma$  antisense polynucleotide is expressed in the cell in a vector.